April, 2005

# APPENDIX F CORRESPONDENCE WITH EIA

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## Surface Transportation Board

**Washington**, **D.C**. 20423-0001

May 5, 2004

The Honorable Guy F. Caruso Administrator Energy Information Administration U.S. Department of Energy 1000 Independence Avenue, SW Washington, DC 20585

Dear Mr. Caruso:

This letter is to request that your Office of Integrated Analysis and Forecasting conduct an analysis using its National Energy Modeling System (NEMS) to assist the Surface Transportation Board in addressing the court decision in <u>Mid States Coalition for Progress v. STB</u>, 345 F.3d 520 (8th Cir. 2003).

In that case, the Board authorized the Dakota, Minnesota & Eastern Railroad to build a shorter, straighter route to transport low-sulphur Powder River Basin (PRB) coal to electric-power plants already served by other railroads. On judicial review, the court remanded the case to the Board to analyze the air quality impacts that may result, if any, from the potentially increased use of PRB coal resulting from lower transportation costs if the line is built. The court suggested that the Board could use computer models to quantify these effects. 345 F.3d at 548-550.

On April 1, 2004, staff from the Board met with Director Mary Hutzler and members of her staff to discuss whether EIA's NEMS model could yield meaningful information on these issues. Ms. Hutzler and her staff were very helpful and indicated that NEMS would be well suited for the analysis suggested by the court. They predicted that it would take approximately 3 to 4 months to perform the analysis using NEMS and prepare a report. They also suggested that the work could be performed at no charge to the Board.

The Board's Section of Environmental Analysis (SEA) would like EIA to run the NEMS model as part of SEA's environmental review to address the issue remanded by the court. Therefore, I am formally requesting this assistance from your organization. Upon your authorization, my staff would meet with Director Hutzler and her staff again to finalize the details of the work.

Because of the importance of completing the supplemental environmental review of this case in a timely manner, we would appreciate hearing from you at your earliest convenience. I appreciate your assistance in this matter and look forward to working with EIA in the future. Please do not hesitate to contact me if you need further information.

Sincerely

Roger Nobe Chairman

cc: Director Hutzler



### Department of Energy

Washington, DC 20585

JUN 0 4 2004

OFFICE OF CHAIRMAN

The Honorable Roger Nober Chairman, Surface Transportation Board The Mercury Building 1925 K Street, N.W. Washington, D.C. 20423

Dear Chairman Nober:

This is in response to your letter of May 5, 2004 requesting that the Energy Information Administration (EIA) provide the Surface Transportation Board (STB) with assistance in analyzing the impact of changes in coal transportation costs using its National Energy Modeling System (NEMS).

My staff indicates that EIA's ability to assist you may be somewhat more limited than your letter suggests. As a national energy model with some regional detail, NEMS is implemented with a significant degree of aggregation. Rail capacity is modeled generically, so the impacts of a particular rail line on coal transportation costs cannot be directly represented. What EIA can provide using NEMS is a sensitivity analysis that examines the implications for energy use and emissions of pre-specified changes in coal transportation costs in designated regions of the country.

Should you determine that such a sensitivity analysis would be useful to the STB, our respective staffs would need to agree on a set of cases to be considered. Then, EIA would execute the necessary model runs. Results would be provided to you in the form of a brief assessment paper that would include tables showing the effects of variation in transportation costs on projected energy use and emissions on a regional basis. The paper would include a clear statement that the cases presented did not reflect an EIA opinion regarding the impact of any particular rail capacity investment on coal transportation costs. It would also note that the results relied on assumptions regarding policies and markets incorporated in the 2004 Annual Energy Outlook Reference Case, including the assumption that current laws and regulations will remain in place throughout the forecast period, which extends to 2025. Consistent with standard EIA practice, the completed paper would be in the public domain.

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With the above in mind, I would welcome your further thoughts on whether and how to proceed. I can be reached at (202) 586-4361. Alternatively, feel free to have your senior staff contact Howard Gruenspecht. EIA's Deputy Administrator, at (202) 586-6351.

Sincerely,

Guy F. Caruso Administrator

Energy Information Administration



#### Surface Transportation Board Washington, D.C. 20423-0001

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December 21, 2004

The Honorable Guy F. Caruso Administrator Energy Information Administration U.S. Department of Energy 1000 Independence Avenue, S.W. Washington, DC 20585

Dear Mr. Caruso:

I am writing to request that your Office of Integrated Analysis and Forecasting conduct an analysis using its National Energy Modeling System (NEMS) to assist the Surface Transportation Board's Section of Environmental Analysis (SEA) in addressing the court decision in Mid States Coalition of Progress v. STB, 345 F.3d 520 (8th Cir. 2003). I understand our staffs have discussed the NEMS model and its capabilities, and SEA believes it would serve its purposes.

SEA would like you to run a sensitivity analysis of NEMS showing the effects of variations in transportation costs on projected energy use and emissions. SEA will provide your staff with the specific variations in transportation costs needed for this analysis. Please contact Victoria Rutson, Chief of SEA, at (202) 565-1545 with any questions.

I appreciate your assistance in helping SEA address the concerns of the court.

Sincerely,

Roger Nober Chairman Michael Boyles/STB 12/27/2004 01:40 PM To john.conti@eia.doe.gov, jbeamon@eia.doe.gov, mmellish@eia.doe.gov cc Vicki Rutson/STB@STB, Diane.Kearney@eia.doe.gov

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Subject NEMS Sensitivity Scenarios

Dear Mr. Conti, Mr. Beamon and Mr. Mellish:

Enclosed are the details of the NEMS sensitivity scenarios that the Section of Environmental Analysis (SEA) would like EIA to run. The NEMS transportation costs we want you to adjust are from two coal market module (CMM) supply regions to four demand regions to reflect the circumstances at issue in the case before the Board. The two supply regions are the Wyoming Northern PRB (region 9, abbreviated NW) and Wyoming Southern PRB (region 10, abbreviated SW). The four demand regions are Ohio (region 5, abbreviated OH), East North Central (region 6, abbreviated EN), Kentucky and Tennessee (region 7, abbreviated KT) and West North Central (region 9, abbreviated CW). The specific variations to the transportation costs from the NW and SW supply regions to each of the four demand regions that we want you to analyze are as follows:

Scenario 1) Lower the transportation costs from supply regions NW and SW to demand region OH by 3.6 percent; lower the transportation costs from NW and SW to demand region EN by 3.6 percent; lower the transportation costs from NW and SW to demand region KT by 1.9 percent; and lower the transportation costs from NW and SW to demand CW by 3.6 percent.

Scenario 2) Lower the transportation costs from supply regions NW and SW to demand region OH by 7.2 percent; lower the transportation costs from NW and SW to demand region EN by 7.2 percent; lower the transportation costs from NW and SW to demand region KT by 3.8 percent; and lower the transportation costs from NW and SW to demand CW by 7.2 percent.

Scenario 3) Raise the transportation costs from supply regions NW and SW to demand region OH by 3.6 percent; raise the transportation costs from NW and SW to demand region EN by 3.6 percent; raise the transportation costs from NW and SW to demand region KT by 1.9 percent; and raise the transportation costs from NW and SW to demand CW by 3.6 percent.

Scenario 4) Raise the transportation costs from supply regions NW and SW to demand region OH by 7.2 percent; raise the transportation costs from NW and SW to demand region EN by 7.2 percent; raise the transportation costs from NW and SW to demand region KT by 3.8 percent; and raise the transportation costs from NW and SW to demand CW by 7.2 percent.

In EIA's assessment paper, we would like you to focus on 2010, 2015 and 2025 compared to the AEO 2005 reference case. We would also like you to include a comparison of changes in carbon dioxide and mercury in addition to the criteria pollutants and changes in coal usage. We would like have your assessment paper completed by January 2005, or as soon as practicable. Once we receive your assessment paper, we will incorporate it into SEA's Draft Supplemental Environmental Impact Statement (Draft SEIS). Lastly, I understand that EIA will coordinate the release of its assessment paper into the public domain with the release of SEA's Draft SEIS, as we discussed in our last meeting at EIA.

Let me know if you have any questions with regard to the NEMS sensitivity scenarios SEA would like you to run.

Sincerely,

Mike Boyles



#### **Department of Energy**

Washington, DC 20585

January 26, 2005

The Honorable Roger Nober Chairman Surface Transportation Board 1925 K Street, N.W. Washington, D.C. 20423-0001

Dear Mr. Nober:

The enclosed analysis responds to your letter of December 21, 2004, requesting that the Energy Information Administration (EIA) use the National Energy Modeling System (NEMS) to run a sensitivity analysis of the impacts of specified changes in coal transportation rates on power plant emissions. Overall, using transportation rate adjustments provided by Surface Transportation Board staff, EIA found very small changes in total coal production, coal consumption, coal-fired electricity generation and electric power sector emissions. There were small changes in regional projections of coal production, but the aggregate amount of coal used and the emissions associated with its use in each consuming region were nearly unchanged from reference case levels.

The results of this analysis likely give a reasonable indication of the magnitude and direction of the expected emissions changes resulting from the specified transportation rate adjustments. However, NEMS operates at a relatively aggregate regional level and does not represent the costs of transporting coal over specific rail lines.

If you have further questions, please do not hesitate to contact me on (202) 586-4361. Alternatively, your staff can contact John J. Conti, Director, Office of Integrated Analysis and Forecasting, at (202) 586-2222.

Sincerely,

Guy F. Caruso Administrator

Energy Information Administration

Enclosure

